

REMARKS

Applicants traverse the above rejections and offer the following explanation.

The Kitao et al. patent discloses a remote controller, remote control interface, and remote control system including a remote controller and a remote control interface, in which a remote controller includes a memory containing control code tables corresponding to the devices to be controlled. The remote controller sends a trigger signal to the remote control interface which, in response, sends a device code back to the remote controller identifying the device to which the remote control interface is connected, thereby identifying which of the control code tables contained in the memory is to be used by the remote controller for controlling the selected device. In a further embodiment, upon receipt of the trigger signal, the remote control interface sends a complete code table for the connected device back to the remote controller.

The Fong et al. patent discloses interactive talking dolls which, in response to an activation signal, one doll performs a function and then causes the other doll to perform a complementary function. Fong et al. further discloses "Switch connections 32 may be coupled to a switch 30 located on or near the toy (such as in body 18 of doll 12, 14) or a key 114 of a keyboard coupled to circuit 100. Infrared detector/receiver 34 receives a signal either

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from an infrared emitting diode, similar to IR emitting driver 42 of circuit 100, of a circuit (substantially identical to circuit 100) in an associated toy or from a remote control device (such as a household television remote controller) which can generate infrared signals. Use of a remote control device for activating the toy of the present invention will be described in greater detail below." (col. 7, line 63 to col. 8, line 6). Fong et al. then describes how the dolls are programmed using the remote control (col. 14, lines 3-43).

The subject invention concerns a remote control device which is capable of controlling at least one further electronic device. To that end, the remote control device includes a memory for storing a set of code data corresponding to the functions to be controlled of the at least one further electronic device. This memory is connected to a control signal generator for generating control signals corresponding to the code data for transmittal to the at least one further electronic device, which includes a control signal input for receiving the control signals.

However, in addition to the control signal generator for generating and transmitting control signals corresponding to the stored code data, the remote control device of the subject invention further includes a code data output unit connected to the memory for selectively reading and transmitting all or a subset of the code data stored in the memory to a first electronic device of

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7

the at least one further electronic device, the first electronic device having a data input for receiving the transmitted code data, and a memory for storing the received code data. As described in the Substitute Specification on page 2, line 20 to page 3, line 17 (paragraph [0005]), by enabling the remote control device to download its stored code data to the memory of a first electronic device, in the event that the code data stored in the memory of the remote control device is lost (for example, due to battery failure), the code data may subsequently be retrieved from the memory of the first electronic device, and as such, re-stored in the memory of the remote control device.

Applicants submit while both Kitao et al. and Fong et al. disclose generating and transmitting control signals from a remote control device to a controlled device for controlling operating functions of the controlled device, neither Kitao et al. nor Fong et al. show or suggest transmitting all (or a subset) of the code data, used to form the control signals, from the remote control device to a first electronic device for storage in a memory of the first electronic device.

In the current Office Action, the Examiner now states "..., the reference of Fong et al. is relied upon for teaching transmitting the control data from the remote control to an electronic device and further storing the data in the memory of the electronic device (col. 14 lines 24-32)".

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8

Applicants submit that the Examiner is mis-interpreting Fong et al. In particular, the passage cited by the Examiner states:

"Each time a user presses a button of the remote control unit, the MCU of the doll being programmed reads the signal in step 402. Before continuing, the MCU must determine, in decision step 404, whether the received signal is valid (recognizable by the MCU). If not, the MCU learn subroutine returns to step 404 to read another signal. If the signal, however, is valid, then the subroutine continues with step 406, in which the read signal is saved in a predefined address (associated with one of the possible actions) in the program for later use."

It should be clear from the above that this portion of Fong et al. does not disclose the transmission of control (i.e., code) data, but rather, the transmission of a (control) signal which is saved by the electronic device in a predefined address associated with one of the possible actions of the electronic device.

In order to further understand the above passage in Fong et al., Applicants refer the Examiner to col. 13, lines 32-38, which states:

"When in learn mode, a learn subroutine is commenced so that MCU 24 may be programmed to interpret an infrared signal generated from a common household remote control unit, such as a commercially available television remote control unit, and respond thereafter to such a signal by performing a desired action as described above."

The key terms in the above passage are "common household remote control unit" and "commercially available television remote control unit". Applicants submit that a "common household remote

control unit" and, in particular, a "commercially available television remote control unit" does not have the capability of reading its code data from memory and transmitting this code data to an electronic device. Rather, a "common household remote control unit" and, in particular, a "commercially available television remote control unit" includes a memory for storing code data, and a signal generator for selectively receiving the stored code data in response to the pressing of one of a plurality of control buttons on the remote control unit. The signal generator then generates a control signal based on the code data, this control signal being transmitted. It should be understood that the control signal includes a "command" portion, and has a particular signal format (including a preamble, the command, a postamble, a signal frequency, number of repetitions, etc.). The code data may only include the "command". Alternatively, the code data may include the "command" as well as instructions for the signal generator to generate the appropriate format.

What Fong et al. is attempting to do is to use a pre-existing "common household remote control unit", which transmits predefined control signals when various ones of its buttons are pressed, to control various operational functions of the electronic device. In a "learn" mode, the electronic device of Fong et al. stores the transmitted control signals for selected ones of the buttons on the remote control unit, such that, in an operate mode,

subsequent presses of the particular buttons causes the electronic device to perform the designated operational functions.

It should be noted that this type of remote control unit is described in, for example, claim 1, lines 1-11 (see above). However, what is missing from a "common household remote control unit" and, in particular, a "commercially available television remote control unit", is "said remote control device further comprises a code data output unit connected to said first memory, said code data output unit having a further input for receiving an upload signal, said code data output unit reading, under control of said upload signal, at least a subset of said set of code data from said memory, transmitting said subset of said set of code data burst-wise to the data input of said first electronic device". Arranged as such, the code data output unit enables the remote control transmitter to read the code data from the memory and to transmit the code data (without first being converted to formatted control signals by the signal generator) to the first electronic device, which, in turn, stores the received code data in a memory.

Applicants submit that this is neither shown nor suggested by Kitao et al. in view of Fong et al., and in particular, by Fong et al.

The Harvey patent discloses a universal remote control with incoming signal identification, in which a universal remote control "learns" the signals of a "native" remote control by

analyzing the signal being transmitted by the native remote control in order to identify the Protocol being used by the native remote control in forming its output signals. However, Applicants submit that the Harvey patent neither shows nor suggests an identifier signal transmitted with the signals from a remote control which identifies the transmission protocol. Further, Applicants submit that Harvey does not supply that which is missing from Kitao et al. and Fong et al., i.e., transmitting all (or a subset) of the code data, used to form the control signals, from the remote control device to a first electronic device for storage in a memory of the first electronic device. Moreover, Harvey neither shows nor suggests transmitting an identifier signal with code data (which Harvey does not transmit) to a first electronic device for storage.

In the current Office Action, the Examiner now states "Harvey the specific protocol used in a remote control signal is determined by an analysis of the remote control data bit information (col. 4, line 66-col. 5, line 3). The data bit from which the protocol is determined is considered the identifier signal."

Applicants submit that the Examiner is mis-interpreting Harvey, or taking that which is stated in Harvey out of context. In particular, the cited passage in Harvey states:

"An analysis of the pause and data bit information, enables the microprocessor to identify a specific

Protocol that was sent by the native remote control from each family of Protocols stored in the ROM 70."

However, if one were to read the opening sentences of the paragraph, to wit:

"For the long carrier Protocol, in addition to the detection of the first pause, a first data bit is also detected. The data bit is the short carrier and short pause that occurs right after the long carrier followed by a long pause. The bit modulation scheme is being identified at this point."

it should be apparent that in the cited passage, Harvey is describing the identification of a single Protocol. As described at col. 3, lines 49-61, there are approximately 50 Protocols commonly in use in the Americas. In the ensuing portion of Harvey, i.e., col. 3, line 62 to col. 5, line 3, there is no description of a single bit information common to all of the Protocols which identifies the respective Protocol. Rather, the microprocessor 10 of Harvey analyzes the transmission signal (or at least a first portion of the transmission signal) from the native remote control unit and compares the analyzed format with a "preprogrammed, internal data base of transmission techniques or Protocols, to know how the control information should be re-transmitted." (col. 4, lines 42-45). It should be understood that Harvey is trying to interpret the transmission signals from "standard" native remote control units, i.e., these units having not been modified to send any special identifier signal in addition to their normal control signals.

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13


Further, Applicants submit that Harvey neither discloses nor suggests including a special identifier signal with an output transmission from a remote control unit. In addition, Applicants submit that Harvey neither discloses or suggests a remote control unit which sends its stored control data, without having been formatted into control signals, along with a special identifier signal which identifies the transmission protocol used by that specific remote control unit for sending control signals.

The Yang patent discloses a configurable remote control device which is capable of downloading program control data. However, Applicants submit that Yang does not supply that which is missing from Kitao et al. and Fong et al., i.e., transmitting all (or a subset) of the code data, used to form the control signals, from the remote control device to a first electronic device for storage in a memory of the first electronic device.

In view of the above, Applicants believe that the subject invention, as claimed, is not rendered obvious by the prior art either individually or collectively (in any combination), and as such, is patentable thereover.

Applicants believe that this application, containing claims 1-5, 7 and 8, is now in condition for allowance and such action is respectfully requested.

Respectfully submitted,

by 
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